

CLAIMS

1. A method of producing labels at a remote location in communication with a server and central database via the internet, comprising:

- 5 receiving via the internet one or more orders for labels, the orders identifying variable data to be printed on the labels;
storing the received orders in the central database;
receiving a request via the internet to process one or more orders for production;
10 storing a plurality of printing templates for a plurality of customers;
merging printing data identified in the one or more orders to be processed and a template selected from the plurality of stored templates to generate image data for the labels to be printed for the one or more processed orders; and
15 storing in the central database the generated image data for communication via the internet to a remote location for label production.

2. A method of producing labels as recited in claim 1 wherein the one or more orders can be received from one or more locations and the request to process the orders can be received from a different location.

3. A method of producing labels as recited in claim 1 wherein the one or more orders can be received from a location and the request to process the orders can be received from the same location.

4. A method of producing labels as recited in claim 1 wherein a plurality of orders can be received from different locations and processed together as one print job.

5 5. A method of producing labels as recited in claim 1 wherein the request to process the one or more orders is associated with an identity of one of a plurality of production methods, each production method requiring image data in a corresponding data file type and wherein the image data is generated in a data file type selected from a plurality of different data file types and corresponding to the identified production method.

6. A method of producing labels as recited in claim 5 wherein the identity of the production method is represented by an identified machine type.

7. A method of producing labels as recited in claim 1 wherein at least one of the stored templates defines a layout of information to be printed on a label.

8. A method of producing labels as recited in claim 1 wherein at least one of the stored templates defines a layout for one or more plates to be used in printing labels, each plate simultaneously printing a plurality of labels.

9. A method of producing labels as recited in claim 8 wherein the stored templates for a plate layout includes at least two labels with different variable data to be printed thereon.

10. A method of producing labels as recited in claim 8 wherein the plate layout includes a layout of information to be printed on each of the plurality of labels defined by the plate.

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11. A method of producing labels as recited in claim 8 including determining the minimal number of plates that can be used to produce the labels and the layout of each plate; calculating an estimated production cost associated with the determined minimal number of plates; increasing the number of plates and recalculating the estimated production costs to determine if the increased number of plates has a lower estimated production cost than the estimated production cost associated with the minimal number of plates.

12. A method of producing labels as recited in claim 1 wherein the image data includes font information required to produce the labels.

13. A method of producing labels as recited in claim 1 wherein the image data includes graphic information required to produce the labels.

14. A method of producing labels as recited in claim 1 wherein the image data for the processed orders stored in the central database is associated with one of a plurality of different types of label production machines and further including receiving a request via the internet to change the production machine for the labels; and reprocessing the orders in accordance with a different printing template associated with the changed production machine.

15. A method of producing labels at a remote location in communication with a server and central database via the internet, comprising:

receiving via the internet one or more orders for labels, the orders identifying variable data to be printed on the labels;

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storing the received orders in the central database;

receiving a request via the internet to group a plurality of orders together as a printing job;

10 generating job data including information representing a type of label to be produced for the job, the variable data to be printed on labels to be produced for the job, and a type of machine to be used in the production of the labels for the job;

15 storing a plurality of printing templates for a plurality of label types and a plurality of machine types used in the production of the labels;

selecting a stored template in accordance with the type of labels to be produced and the type of machine to be used in the production of the labels;

20 merging the variable data to be printed on the labels and a selected printing templates to generate image data for the labels in a production data file to be used in the production of the labels;

storing the production data file in the central database; and

sending the stored production data file to a remote location via the internet.

16. A method of producing labels as recited in claim 15 wherein the information representing the type of machine to be used in production of the labels is an identified production technique.

17. A method of producing labels as recited in claim 15 wherein the steps of selecting a template, merging the data, and storing the production data file are automatically implemented in response to receipt of a confirmation to process a job.

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18. A method of producing labels as recited in claim 15 wherein the production data file generated can be directly input to the type of production machine for which the production data file was generated.

19. A method of producing labels as recited in claim 15 wherein the one or more orders can be received from one or more locations and the request to process the orders can be received from a different location.

20. A method of producing labels as recited in claim 15 wherein the one or more orders can be received from a location and the request to process the orders can be received from the same location.

21. A method of producing labels as recited in claim 15 wherein a plurality of orders can be received from different locations and processed together as one print job.

22. A method of producing labels as recited in claim 15 wherein the step of storing templates includes storing a plurality of templates for labels to be produced by a thermal printer.

23. A method of producing labels as recited in claim 15 wherein the step of storing templates includes storing a plurality of templates for plates used to produce labels by lithographic printing.

24. A method of producing labels as recited in claim 15 wherein at least one of the stored templates defines a layout of information to be printed on a label.

25. A method of producing labels as recited in claim 15 wherein at least one of the stored templates defines a layout for one or more plates to be used in printing labels, each plate simultaneously printing a plurality of labels.

26. A method of producing labels as recited in claim 25 wherein the stored templates for a plate layout includes at least two labels with different variable data to be printed thereon.

27. A method of producing labels as recited in claim 25 wherein the plate layout includes a layout of information to be printed on each of the plurality of labels defined by the plate.

28. A method of producing labels as recited in claim 25 including determining the minimal number of plates that can be used to produce the labels and the layout of each plate; calculating an estimated production cost associated with the determined minimal number of plates; increasing the number of plates and recalculating the estimated production costs to determine if the increased number of plates has a lower estimated production cost than the estimated production cost associated with the minimal number of plates.

29. A method of producing labels as recited in claim 15 wherein the production file includes a data stream that can be directly input to a printer for printing the labels of a job.

30. A method of producing labels as recited in claim 15 wherein the production file includes font information.

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31. A method of producing labels as recited in claim 15 wherein the production file includes graphic information.

32. A method of producing labels as recited in claim 15 including receiving a request via the internet to change a machine type for a job; reselecting a stored template in accordance with the changed machine type; merging the variable data with the reselected template to
5 generate a new production data file for the labels and storing the new production data file in the central database.

33. A method of producing labels at a remote location in communication with a server and database via the internet, comprising:
storing a plurality of orders for labels in the database, the orders identifying variable data to be printed on the labels;
5 generating job data for a plurality of orders to be processed together, the job data including information representing a type of label to be produced for the job, a type of machine to be used in the production of the labels for the job, and the variable data to be printed on labels to be produced for the job;
10 storing a plurality of printing templates for a plurality of label types and a plurality of machine types used in the production of the labels;
selecting a stored template in accordance with the type of labels to be produced; and
15 merging the variable data to be printed on the labels and a selected printing template to generate image data for the labels in a production data file to be used in the production of the labels, the type of production data file generated corresponding to the type of machine to be used in the production of the labels;
20 storing the production data file; and

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sending the stored production data file to a remote location via the internet.

34. A method of producing labels as recited in claim 33 including the step of receiving orders for labels from a remote location via the internet and wherein the orders and production data files are stored in a central database.

35. A method of producing labels as recited in claim 34 wherein the orders in a job can be received from different locations.

36. A method of producing labels as recited in claim 34 wherein the production data file can be sent to a remote location that is the same or different from the remote locations from which the orders for a job are received.

37. A method of producing labels as recited in claim 33 wherein the information representing the type of machine to be used in production of the labels is an identified production technique.

38. A method of producing labels as recited in claim 33 wherein the steps of selecting a template, merging the data, and storing the production data file are automatically implemented in response to receipt of a confirmation to process a job.

39. A method of producing labels as recited in claim 33 wherein the production data file generated can be directly input to the type of production machine for which the production data file was generated.

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40. A method of producing labels as recited in claim 33 wherein the one or more orders can be received from a location and the request to process the orders can be received from the same location.

41. A method of producing labels as recited in claim 33 wherein a plurality of orders can be received from different locations and processed together as one print job.

42. A method of producing labels as recited in claim 33 wherein at least one of the stored templates defines a layout of information to be printed on a label.

43. A method of producing labels as recited in claim 33 wherein at least one of the stored templates defines a layout for one or more plates to be used in printing labels, each plate simultaneously printing a plurality of labels.

44. A method of producing labels as recited in claim 43 wherein the stored templates for a plate layout includes at least two labels with different variable data to be printed thereon.

45. A method of producing labels as recited in claim 43 wherein the plate layout includes a layout of information to be printed on each of the plurality of labels defined by the plate.

46. A method of producing labels as recited in claim 43 including determining the minimal number of plates that can be used to produce the labels and the layout of each plate; calculating an estimated production cost associated with the determined minimal number of plates; increasing the number of plates and recalculating the estimated

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production costs to determine if the increased number of plates has a lower estimated production cost than the estimated production cost associated with the minimal number of plates.

47. A method of producing labels as recited in claim 33 wherein the plate layout includes a layout of information to be printed on each of the plurality of labels defined by the plate.

48. A method of producing labels as recited in claim 33 including determining the minimal number of plates that can be used to produce the labels and the layout of each plate; calculating an estimated production cost associated with the determined minimal number of plates; increasing the number of plates and recalculating the estimated production costs to determine if the increased number of plates has a lower estimated production cost than the estimated production cost associated with the minimal number of plates.

49. A method of producing labels as recited in claim 33 wherein the production file includes a data stream that can be directly input to a printer for printing the labels of a job.

50. A method of producing labels as recited in claim 33 wherein the production file includes font information.

51. A system for producing labels at a plurality of remote locations on a plurality of different types of production machines wherein the remote locations are in communications with the system via the internet, comprising:

a database; and

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10 at least one server receiving orders for labels via the internet, the orders identifying variable data to be printed on the labels and storing the orders in the database, at least one server being responsive to a user's input to process a plurality of orders together to form a printing job to be produced on an identified machine type and automatically generating a production data file for the labels to be produced for the job, the at least one server thereafter storing the production data file in the database, and sending a stored production data file to a remote location via the internet.

52. A system for producing labels as recited in claim 51 wherein said server operates in accordance with an order entry routine and said database stores a plurality of data tables for a plurality of store groups accessed during the order entry routine including for each store group a plurality of web page tables, each web page table defining a plurality of web pages with different web pages being associated with different label types available for ordering and each web page including a plurality of variable data entry fields.

53. A system for producing labels as recited in claim 51 wherein said server operates in accordance with a routine to allow new label types to be added to the system and available for ordering by communication with the system via the internet, the routine being responsive to user inputs to update the web page tables and automatically create a new web page to allow the new label type to be ordered.

54. A system for producing labels as recited in claim 51 wherein different types of production data files are generated for different types of machines used in the production of labels.

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55. A system for producing labels as recited in claim 54 wherein production data files are generated for thermal printers.

56. A system for producing labels as recited in claim 54 wherein production data files are generated for plate making machines.

57. A system for producing labels as recited in claim 51 wherein the system includes a main server and a web server that forms an interface between the main server and internet.

58. A system for producing labels as recited in claim 51 wherein the system includes a main server and a second server; the second server being responsive to job data received from the main server to generate the production data file.

59. A method of operating a server and central database to allow labels to be ordered from remote locations in communication with the server and database via the internet comprising:

- 5 storing a plurality of tables for each of a plurality of customer groups, each table defining a plurality of web pages, different web pages being associated with different label types available for ordering;
- receiving inputs via the internet from a user, the inputs defining a new label type to be added to the system and available for ordering;
- 10 automatically updating said tables to define a new web page associated with the new label type; and
- generating a web page to allow labels of the new label type to be ordered.

